

REMARKS

Claims 2, 3, 8-10, 12, 14, 17-22 are currently under examination, of which claims 19 and 21 are independent claims. In view of the amendments and following Remarks, Applicants respectfully request reconsideration of the pending rejections for the reasons discussed below.

Rejections Under 35 U.S.C. §103

Claims 2, 3, 8-12, 14, and 17-22 stand rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,655,633 to Chapman, Jr. ("Chapman") in view of U.S. Patent No. 44,450,207 to Donomoto et al. ("Donomoto"). Applicants respectfully traverse this rejection for at least the following reasons.

Independent claims 19 and 21 require at least one layer of a composite stiffening material attached to each of said two planar surfaces, wherein said composite stiffening material comprises a continuous fiber metal matrix composite tape, comprising continuous aluminum oxide fibers, wherein substantially all of the continuous aluminum oxide fibers are oriented substantially parallel to the longitudinal channels. Applicant respectfully submits that Chapman in view of Donomoto does not disclose, teach, or suggest the combination of features of claims 19 and 21.

This combination does not disclose 1) the width of the channel, 2) the extruded tubular core, 3) metal matrix composite tape on the surfaces of a multi-void core, or 4) aluminum oxide reinforcing fibers of metal matrix composite tape, and that substantially all of the continuous aluminum oxide fibers are oriented substantially parallel to the longitudinal channels or ribs.

Chapman disclosing filament winding fibers around a structure to form a skin, but does not disclose utilizing metal matrix composite tape applied to a surface of a core as claimed in

claims 19 and 21. Donamoto similarly does not disclose these features. The combination of Chapman in view of Donamoto would provide a structure different than Applicants claimed invention. That is, a structure in which aluminum oxide fibers that were filament wound around the structure and “cured” to form a composite structure. Among other features, no metal matrix composite tape. “Curing” does not make sense in the context of metal matrix composites but that is what Chapman describes as it relates to the skins. Chapman, col. 9, lines 22-30. This combination would not provide metal matrix composite tape on the planar surfaces with aluminum oxide fibers parallel to the ribs as in claims 19 and 21. Applicant submits for at least these reasons, claims 19 and 21 and all the claims that depend therefrom are not obvious over Chapman in view of Donamoto.

Claims 2, 10, 11, 14, and 19-22 stand rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,630,093 to Jones et al. (“Jones”) in view of Donamoto. Applicants respectfully traverse this rejection and request reconsideration for at least the following reasons.

As discussed above, claims 19 and 21 require at least one layer of a composite stiffening material attached to each of said two planar surfaces, wherein said composite stiffening material comprises a continuous fiber metal matrix composite tape, comprising continuous aluminum oxide fibers, wherein substantially all of the continuous aluminum oxide fibers are oriented substantially parallel to the longitudinal channels.

The combination of Jones in view of Donamoto fails to disclose 1) the width of the channel, 2) the extruded tubular core, 3) metal matrix composite tape on the surfaces of a multi-void core, 4) aluminum oxide reinforcing fibers, and that substantially all of the continuous aluminum oxide fibers are oriented substantially parallel to the longitudinal channels or ribs.

Applicant respectfully submits that the combination of Jones in view of Donomoto does not disclose, teach, or suggest the combination of features of claims 19 and 21 and the claims 19 and 21 as well as all the claims that depend therefrom are not obvious over Jones in view of Donomoto.

Claims 3, 8, 9, 12, 17, and 18 stand rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,630,093 to Jones et al. ("Jones") in view of Donomoto, further in view of Gunnink. Applicants respectfully traverse this rejection and request reconsideration for at least the following reasons. All of these claims depend from claim 19. The arguments provided above apply equally to this rejection. As discussed above, the combination of Jones in view of Donomoto does not disclose teach or suggest all the features of claim 19. Gunnink does not provide the missing features of claim 19. Therefore, the combination of Jones in view of Donomoto in further view of Gunnink still fails to provided all the limitations of claims 19. Further, the additional features of claims 3, 8, 9, 12, 17, and 18 and the features of claim 19 provide a combination of features that are not present in Jones in view of Donomoto in further view of Gunnick. Applicant respectfully submits that claims 3, 8, 9, 12, 17, and 18 are not obvious over Jones in view of Donomoto further in view of Gunnink.

Extension of Time

A Petition for a three (3)-month extension of time under 37 C.F.R. §1.136(a) is filed herewith. It is not believed that any further extensions of time are required other than those in the accompanying Petition. If extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned for under 37 C.F.R. §1.136(a).

Applicant believes that no further fees for net addition of claims are required at this time. Any fees required for extensions of time and any fees for the net addition of claims are hereby authorized to be charged to our Deposit Account No. 50331.

Conclusion

Applicants believe that a full and complete response has been made to the pending Office Action and respectfully submit that all of the stated objections and grounds for rejection have been overcome or rendered moot. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Respectfully submitted,



Philip D. Lane
Reg. No. 41,140

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Philip D. Lane
P.O. Box 79318
Charlotte, NC 28271-7063
Tel: 704-301-5007